

WHAT IS CLAIMED IS:

1. A vehicle washing apparatus, comprising:
a carriage which is movable lengthwise of a vehicle; and
a gantry supported on the carriage and having spray nozzles for directing liquid toward the vehicle;
wherein the gantry is movably mounted relative to the carriage such that the carriage and gantry are selectively movable to locate the spray nozzles at positions directly in front, above, and directly behind the vehicle for effective cleaning.
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2. A vehicle washing apparatus as set forth in claim 1 further comprising supports on the carriage for supporting the gantry, the supports having an arched shape.
3. A vehicle washing apparatus as set forth in claim 2 wherein each support includes a track engageable by the gantry for directing its movement along the support.
4. A vehicle washing apparatus as set forth in claim 3 wherein the track comprises a chain mounted within a channel.
5. A vehicle washing apparatus as set forth in claim 4 further comprising a flanged drive wheel on the gantry which has teeth engageable with the chain.
6. A vehicle washing apparatus as set forth in claim 3 further comprising a sensor for sensing a position of the vehicle, the carriage being configured for moving from a first position generally at a front of the vehicle where the gantry is positionable directly in front of the vehicle, along a distance corresponding to a length of the vehicle to a second position generally at a rear of the

vehicle where the gantry is positionable directly behind the vehicle.

7. A vehicle washing apparatus as set forth in claim 6 wherein the supports and gantry are configured such that when the spray nozzles are at the positions directly in front of and directly behind the vehicle, a spacing 5 between the nozzles and the vehicle is within a range between about 6 and 16 inches.

8. A vehicle washing apparatus as set forth in claim 3 further comprising rotating side sprayers on the carriage for directing liquid toward laterally outwardly facing surfaces of the vehicle.

9. A vehicle washing apparatus as set forth in claim 2 wherein the spray nozzles are maintained in position facing inwardly of the arched-shaped supports and generally toward the vehicle during movement of the gantry 5 relative to the carriage.

10. A vehicle washing apparatus as set forth in claim 9 wherein the spray nozzles are supported on the gantry for oscillatory motion.

11. A vehicle washing apparatus as set forth in claim 1 further comprising a hydraulic system configured to provide independent variable speeds of movement of both the gantry and carriage.

12. A method of washing a vehicle, comprising the steps of:

5 directing liquid toward the vehicle from spray nozzles mounted on a gantry, the gantry being supported for movement relative to a carriage which is movable lengthwise of the vehicle;

10 moving the nozzles, in any sequence, to positions directly in front, above, and directly behind the vehicle by selectively moving the gantry relative to the carriage and moving the carriage relative to the vehicle.

13. A method of washing a vehicle as set forth in claim 12 wherein moving the gantry relative to the carriage comprises directing the gantry along an arch-shaped support of the carriage.

14. A method of washing a vehicle as set forth in claim 13 further comprising the step of determining vehicle length for moving the carriage to position for effectively cleaning a rear of the vehicle.